

ABSTRACT

**ANTI-REFLECTIVE (AR) COATING FOR HIGH INDEX GAIN MEDIA**

**[0034]** Anti-reflective coatings may be used on laser high index gain media to mitigate reflection. An absentee layer may be used to compliment the antireflective coating to improve its antireflective performance over a broader range of wavelengths. The absentee layer comprises a material having a higher index of refraction than that of the gain media and has a thickness corresponding to multiple halfwave thicknesses related to the center wavelength output by the laser.